

Work Order ID 144511

April 19, 2016 12:51:59 PM

144511

Page 1

Item ID: D350-591-213

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Heli-Access-Step™ LH - High Gear, Short Step, Aerazur Float Compatible

Stop

NS2

Start Date: 5/4/2016 Start Qty: 5.00

5

Cust Item ID:

Required Date: 5/13/2016 Req'd Qty: 5.00

5

Customer:

Reference:

Approvals:

Process Plan: 5thDate: 20160419

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

IIN-D350-591

H

DAS
6
9-89

MCS

160428

100

Document Control

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile and type labels as per PPP D350-591-213 CHG005

XS

DAS
28
9-89

MAY 12 2016

270

Pick Kit

0.00

270

Packaging

Memo

0.05

Packaging

5

APR 28 2016

DAS
6
9-89DAS
28
9-89

280

QC4- 100% Inspect kits for completeness

0.00

280

QC

Memo

0.15

Quality Control

XS

MAY 12 2016

B144407 (X6LH1)

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																		
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																		
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																		
Large Fab ☐	Composite ☐	Supplier ☐																			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval																	
Description Work Order Deviation		Disposition		Completed By																	
				Lead hand / Supervisor Approval Verification																	
				QC / QA Coordinator Approval																	
<table style="width:100%; border: none;"> <tr> <td colspan="2" style="text-align: center; border: none;">Root Cause</td> <td colspan="3" style="text-align: center; border: none;">FAULT CATEGORY</td> </tr> <tr> <td style="border: none; vertical-align: top;"> Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ </td> <td style="border: none; vertical-align: top;"> No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐ </td> <td style="border: none; vertical-align: top;"> Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ </td> <td style="border: none; vertical-align: top;"> Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ </td> <td style="border: none; vertical-align: top;"> Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ </td> <td style="border: none; vertical-align: top;"> Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐ </td> </tr> <tr> <td colspan="3" style="border: none; vertical-align: top;"> OTHER : ☐ </td> <td></td> <td></td> </tr> </table>					Root Cause		FAULT CATEGORY			Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : ☐					
Root Cause		FAULT CATEGORY																			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																
OTHER : ☐																					

Work Order ID 144511

144511

Page 2

April 19, 2016 12:51:59 PM

Item ID: D350-591-213

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Heli-Access-Step™ LH - High Gear, Short Step, Aerazur Float Compatible

Stop *NS2*

Start Date: 5/4/2016 Start Qty: 5.00

5

Cust Item ID:

Required Date: 5/13/2016 Req'd Qty: 5.00

5

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
290	Packaging	0.00							
290									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D350-591-213								
	Location: _____								
	PPP Rev: _____								
300	QC21- Final Inspection - Work Order Release	0.00							
300									
QC	Memo	0.50							
Quality Control									

XS

BAS
27
9-89

MAY 12 2016

MLJ

MAY 13 2016

MLJ

MAY 12 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

April 19, 2016 12:52:03 PM

Page 1

Work Order ID: 144511

144511

Parent Item: D350-591-213

D350-591-213

Parent Item Name: Heli-Access-Step™ LH - High Gear, Short Step, Aerazur Float Compatible

Start Date: 5/4/2016

Required Date: 5/13/2016

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP Rev:B05.10.14 Modified step 10KJ/EC
 IPP Rev:C 06-06-19 Added D2732-030 AS PER DSI9294 JLMIPP
 REV:D 14.12.17 ADD DSI9712-011 DD VERF:JLM
 IPP Rev:C 06-06-27 Revised as per DSI9340 JLM IPP Rev:D
 10.03.17 incorporate seq 180 to 200 remove qc5 DD verified
 by:JLM IPP Rev:E
 10.11.15 update qty on AN4-11A DD verf:EC IPP REV:F 16.03.16
 IIN REV:H DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3078-041		Manufactured	No			270	Each	0.0000	1	5			
-----------	--	--------------	----	--	--	-----	------	--------	---	---	--	--	--

5 *D3078-041*

Step Assembly, Hi Short L

D2230-3

5 *D2230-3*

Mounting Lug

Manufactured No

270

Each

165.0000

2

10

Location

Loc Qty

Loc Code

FG

8

109344

4

89045

4

ST521

157

141406

157

D2618

5 *D2618*

Bushing

Manufactured No

270

Each

49.0000

2

10

Location

Loc Qty

Loc Code

ST008A

49

141571

49

DAS
28
9-89

DAS
6
9-89

DAS
27
9-89

DAS
27
9-89

APR 30 2016

MAY 04 2016

Picklist Print

April 19, 2016 12:52:04 PM

Page 2

Work Order ID: 144511

144511

Parent Item: D350-591-213

D350-591-213

Parent Item Name: Heli-Access-Step™ LH - High Gear, Short Step, Aerazur Float Compatible

Start Date: 5/4/2016

Required Date: 5/13/2016

Start Qty: 5.00

Required Qty: 5.00

D2732

Manufactured No

270

f

0.0000

1

5.263158

144013x5

DAS

DAS

9-89

27

9-89

5 *D2732*030
Rubber Cushion (Sper foot)

DAS
28
9-89

Location

Loc Qty

Loc Code

ST412

5E-10

117118

5E-10

cut qty of 4 at 3.00" as per dwg(D2732-030)

D3235-1

Manufactured No

270

Each

132.0000

2

10

5 *D3235-1*
Mounting Lug

DAS
28
9-89

Location

Loc Qty

Loc Code

ST521

32

141693

32

ST546A

100

143809

100

AN3-35A

Purchased No

270

Each

229.0000

2

10

5 *AN3-35A*
Bolt

DAS
28
9-89

Location

Loc Qty

Loc Code

FG

10

122800

10

ST348

219

m134167

50

m134497

169

DAS
27
9-89
DAS
6
9-89

APR 30 2016

Picklist Print

April 19, 2016 12:52:04 PM

Page 3

Work Order ID: 144511

144511

Parent Item: D350-591-213

D350-591-213

Parent Item Name: Heli-Access-Step™ LH - High Gear, Short Step, Aerazur Float Compatible

Start Date: 5/4/2016

Required Date: 5/13/2016

Start Qty: 5.00

Required Qty: 5.00

AN4-15A Purchased No 270 Each 304.0000 4 20

5 ***AN4-15A***
Bolt

DAS
28
9-89

Location	Loc Qty	Loc Code
GA	34	
120449	34	
ST343	270	
m134606	270	

**

DAS
27
9-89

AN5-36A Purchased No 270 Each 119.0000 2 10

5 ***AN5-36A***
Bolt

DAS
28
9-89

Location	Loc Qty	Loc Code
over004	40	
M134509	40	
ST336	79	
M130466	15	
M134502	64	

**

DAS
27
9-89

NAS1149D0363J Purchased No 270 Each 2,065.000 4 20

5 ***NAS1149D0363.J***
Washer

DAS
28
9-89

Location	Loc Qty	Loc Code
GA	583	
m134055	583	
ST260a	1000	
m134606	1000	
ST263	482	
m134370	482	

**

DAS
27
9-89

APR 30 2016

April 19, 2016 12:52:05 PM

Shop Packet Print

Page 3

Picklist Print

April 19, 2016 12:52:05 PM

Page 4

Work Order ID: 144511

144511

Parent Item: D350-591-213

D350-591-213

Parent Item Name: Heli-Access-Step™ LH - High Gear, Short Step, Aerazur Float Compatible

Start Date: 5/4/2016

Required Date: 5/13/2016

Start Qty: 5.00

Required Qty: 5.00

NAS1149D0463J

Purchased

No

270

Each

3,244.000

12

60

5 ***NAS1149D0463.J***
WASHER

Location

Loc Qty

Loc Code

GA	419	
M129390	41	
M132035	21	
M134508	357	
ST260a	1796	
M134508	600	600
M134573	1196	
ST263	41	
M134039	41	
ST269	988	
M132317	100	
M132677	888	

DAS
28
9-89

APR 30 2016

63-6
LZ
DAS
28
9-89

NAS1149D0563J

Purchased

No

270

Each

1,509.000

4

20

5 ***NAS1149D0563.J***
Washer

Location

Loc Qty

Loc Code

GA	279	
m125807	2	
m133769	277	
ST260a	1000	
m134497	1000	20
ST263	131	
m134257	131	
ST269	99	
m128257	99	

DAS
28
9-89

APR 30 2016
DAS
27
63-6
9-89
SWG

April 19, 2016 12:52:05 PM

Shop Packet Print

Page 4

Picklist Print

April 19, 2016 12:52:05 PM

Page 5

Work Order ID: 144511

144511

Parent Item: D350-591-213

D350-591-213

Parent Item Name: Heli-Access-Step™ LH - High Gear, Short Step, Aerazur Float Compatible

Start Date: 5/4/2016

Required Date: 5/13/2016

Start Qty: 5.00

Required Qty: 5.00

MS21042L3

Purchased

No

270

Each

1,723.000

2

10

DAS

27

DAS 9-89

6
9-89

5 *MS21042L3*

Nut

DAS
28
9-89

Location

Loc Qty

Loc Code

FP001

100

m133790

100

GA

782

m133790

3

m134360

779

ST304

841

m134039

12

m134360

829

MS21042L4

Purchased

No

270

Each

2,308.000

6

30

DAS

6

9-89

DAS 27
9-89 9-89
APR 30 2016

5 *MS21042L4*

Locknut

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

324

m133769

324

OVER007

1500

m134509

500

m134606

1000

ST303

387

m134055

1

m134502

386

ST305

97

m130922

97

April 19, 2016 12:52:06 PM

Shop Packet Print

Page 5

Picklist Print

April 19, 2016 12:52:06 PM

Page 6

Work Order ID: 144511

144511

Parent Item: D350-591-213

D350-591-213

Parent Item Name: Heli-Access-Step™ LH - High Gear, Short Step, Aerazur Float Compatible

Start Date: 5/4/2016

Required Date: 5/13/2016

Start Qty: 5.00

Required Qty: 5.00

MS21042L5

Purchased

No

270

Each

511.0000

2

10

5

MS21042L5

Nut

DAS DAS
6 27
8-89 9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

127

m127813

127

OVER007

100

m134509

100

ST303

284

m134055

34

m134567

250

to

APR 30 2016

Qty -213	Qty -214	Qty -215	Qty -216	Qty -311	Qty -312	Part Number	Description
X						D350-591-213	<i>Heli-Access-Step™</i> , Short Step – High Skid, LH
	X					D350-591-214	<i>Heli-Access-Step™</i> , Short Step – High Skid, RH
		X				D350-591-215	<i>Heli-Access-Step™</i> , Short Step – Low Skid, LH
			X			D350-591-216	<i>Heli-Access-Step™</i> , Short Step – Low Skid, RH
				X		D350-591-311	<i>Heli-Access-Step™</i> , Long Step – High Skid, LH
					X	D350-591-312	<i>Heli-Access-Step™</i> , Long Step – High Skid, RH
1						D3078-041	STEP ASSEMBLY (HIGH-SHORT, LH)
	1					D3078-042	STEP ASSEMBLY (HIGH-SHORT, RH)
		1				D3168-041	STEP ASSEMBLY (LOW-SHORT, LH)
			1			D3168-042	STEP ASSEMBLY (LOW-SHORT, RH)
				1		D3272-041	STEP ASSEMBLY (HIGH-LONG, LH)
					1	D3272-042	STEP ASSEMBLY (HIGH-LONG, RH)
2	2	2	2	4	4	D2230-3	MOUNTING LUG
2	2	2	2	2	2	D2618	BUSHING
4	4	4	4			D2732-030	CUSHION
				2	2	D2856-400-720	ABRASION STRIP
2	2	2	2	2	2	D3235-1	MOUNTING LUG
				1	1	D3278-041	SUPPORT ASSEMBLY
2	2	2	2	2	2	AN3-35A	BOLT
				8	8	AN4-13A	BOLT
4	4	4	4			AN4-15A	BOLT
2	2	2	2	2	2	AN5-36A	BOLT
4	4	4	4	4	4	NAS1149D0363J	WASHER (AN960JD10)
12	12	12	12	16	16	NAS1149D0463J	WASHER (AN960JD416)
4	4	4	4	4	4	NAS1149D0563J	WASHER (AN960JD516)
2	2	2	2	2	2	MS21042L3	NUT
6	6	6	6	8	8	MS21042L4	NUT
2	2	2	2	2	2	MS21042L5	NUT
				1	1	*DSI 9410-011	STEP MODIFICATION KIT

*DSI 9410-011 Step Modification Kits are provided with all D350-591-311 and D350-591-312 Steps. This kit is provided as an option for the installer and is therefore **NOT REQUIRED** to complete the installation of the D350-591-311 or D350-591-312 Steps. Refer to Figure 15 for installation of the DSI 9410-011 Kit.